0032

June 17, 2003

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor

FROM Gregg A. Galecki, Environmental Scientist/Hydrologist

RE: Technical Field Visit, Dugout Creek Mine Discharge, Canyon Fuel Company, LLC., Dugout Mine, C/007/039

DOGM Attendees: Gregg Galecki

Other Attendees: Vicky Miller, CFC personnel

Date & Time: June 17, 2003, 10:00 – 12:00.

PURPOSE:

To observe the existing condition of the Dugout Creek watershed due to mine discharge.

OBSERVATIONS:

Due to conditions encountered within the mine, Canyon Fuel Company (CFC) personnel has had to discharge water into Dugout Creek using UPDES Discharge point 001. Currently, approximately 70 gpm is discharging from active mine workings and approximately 350 gpm is being discharged from the old Knight Mine workings. Discharge from the old Knight workings began June 11, 2003. Both are considered UPDES Discharge point 001. The discharge from the Knight Mine is the same water that was encountered and discharged August 2002. In addition to UPDES parameters, solute water chemistry for the Knight Mine discharge is addressed with sample site MD-1 that does not flow unless the mine workings are flooded.

Due to relatively high TDS (2,000 to 2,600 mg/l), Iron (5 mg/l), and Flow (350 gpm) values CFC personnel has been working closely with Division of Water Quality (DWQ) personnel to modify the UPDES permit to be compliant. Evidence of high Iron values is noted by the iron-staining present on the alluvium as water leaves the site. However, the iron is neutralized quickly and no iron staining is observed a few hundred feet downstream. In addition, collecting UPDES water analysis CFC personnel has been monitoring TDS values at six (6) locations downstream. CFC personnel estimates the inflow into the old Knight mine to be approximately 37 gpm. However, once dewatered the mine will monitor two (2) in-mine drill holes to better regulate the recharge of the old workings. The results of the monitoring will be submitted to DWQ and DOGM personnel in the near future.

Normal seasonal flow in Dugout Creek is at approximately 100 gpm making the total flow in the creek at approximately 500 gpm (1.1 cfs). Observations of the stream channel downstream indicate the natural stream channel can adequately handle the additional flow. Flow is well-below bank-full capacity, and the channel is well armored.

Water from Dugout Creek is normally diverted into Clarks Valley and into Grassy Trail Creek. Currently, the water is being used to fill stock ponds and irrigate fields and very little, if any water is reporting to Grassy Trail Creek (the first perennial stream).

RECOMMENDATIONS/CONCLUSIONS:

The natural stream channel adequately handling increased mine discharge and is being put to beneficial use. The beneficial uses of wildlife, stock watering, and irrigation offset any detrimental effects caused by the increased TDS values. Monitoring of the discharge should continue to ensure no future mitigation is necessary.

cc: Vicky Miller
Price Field Office
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